**WHAT IS CLAIMED IS:**

1. An ink cartridge comprising:

an ink storage chamber;

an ink supply port; and

a negative pressure generating mechanism which selectively blocks and opens fluid communication between the ink storage chamber and the ink supply port as a consequence of consumption of ink, the negative pressure generating mechanism including,

an elastic member having first and second surfaces and a sealing portion, the sealing portion having a through-hole;

an ink flow path communicating with the ink supply port and having an opening portion at a position where the sealing portion of the elastic member contacts with and separates from the opening portion, the opening portion facing the through-hole;

a communicating portion facing the first surface of the elastic member and communicating with the ink storage chamber; and

a space portion facing the second surface of the elastic member and communicating with the ink supply port.

2. The ink cartridge according to claim 1, wherein when the sealing portion of the elastic member separates from the opening portion, ink in the communicating portion flows via the opening portion into the ink supply port and also via the through-hole into the ink supply port.

3. The ink cartridge according to claim 1, wherein the sealing portion of the elastic member is constructed as a protrusion protruded from the first surface.

4. The ink cartridge according to claim 1, wherein the space portion communicates with the ink supply port via an ink flow path different from the ink flow path having the opening portion.

5. The ink cartridge according to claim 1, wherein the space portion communicates with the ink supply port via the through-hole and the opening portion.

6. The ink cartridge according to claim 1, wherein the negative pressure generating mechanism further includes a partition wall that is disposed at an upstream side of the elastic member and that defines a compartment between the elastic member and the partition wall, the partition wall having a protruding portion against which the sealing portion of the elastic member presses, and the opening portion of the ink flow path is formed in, the protruding portion.

7. The ink cartridge according to claim 6, wherein the negative pressure generating mechanism further includes a biasing member that is disposed opposite to the protruding portion and which urges the elastic member toward the protruding portion.

8. The ink cartridge according to claim 6, wherein the elastic member is urged toward the protruding portion by elastic deformation of the elastic member.

9. The ink cartridge according to claim 6, wherein the opening portion

of the protruding portion is disposed to substantially face a center of the elastic member.

10. The ink cartridge according to claim 1, wherein the space portion includes a compartment that faces the second surface of the elastic member, the compartment being arranged so that consumption of ink causes a change in a pressure applied to a downstream side of the elastic member, and the change in the pressure is applied to a substantially entire area of the second surface of the elastic member.

11. The ink cartridge according to claim 1, wherein ink in the ink storage chamber flows via a flow passage connecting the ink storage chamber to the first surface of the elastic member, the opening portion of the ink flow path, a flow passage connected to the opening portion of the ink flow path, the space portion facing the second surface of the elastic member and a flow passage connecting the space portion to the ink supply port, in this order, into the ink supply port.

12. The ink cartridge according to claim 6, wherein a flow passage of the ink flow path includes a first portion that communicates the opening portion of the protruding portion with the ink supply port, and the flow passage branches at an intermediate position to define a branching passage, the space portion includes a closed space the pressure in which is applied onto a substantially entire area of the second surface of the elastic member, and the branching passage is in fluid communication with the closed space.

13. The ink cartridge according to claim 1, wherein the first and the second surfaces of the elastic member contacts ink over a substantially same area.

14. The ink cartridge according to claim 1, wherein the opening portion of the ink flow passage includes a cylindrical portion located at an elastic member side and an flared portion flaring outward moving along the flared portion in a direction of ink flow toward the ink supply port.

15. The ink cartridge according to claim 1, wherein at least the sealing portion of the elastic member, which contacts the opening portion, is formed as a planar surface.

16. The ink cartridge according to claim 1, wherein the negative pressure generating mechanism further includes a biasing member that presses the sealing portion of the elastic member into contact with the opening portion.

17. The ink cartridge according to claim 1, wherein the ink flow path is formed at least partly by a recessed portion formed in an ink supply flow passage forming member, and a film sealing the recessed portion.

18. The ink cartridge according to claim 17, wherein the opening portion is formed by a through-hole formed through the ink supply flow passage forming member.

19. The ink cartridge according to claim 1, further comprising a frame member having the ink supply port, and a lid member sealingly closing an opening surface of the frame member, and a region in which the negative pressure generating mechanism is installed is formed integral with or discrete from the frame member.

20. The ink cartridge according to claim 1, wherein the ink storage chamber is divided into an upper ink storage chamber sealed from an atmosphere and a lower ink storage chamber opened to the atmosphere, the upper ink storage chamber communicates with the lower ink storage chamber via a flow passage, and the negative pressure generative mechanism is disposed in a flow passage connecting the upper ink storage chamber to the ink supply port.

21. The ink cartridge according to claim 1, wherein the opening portion is constructed as a through-hole formed through a protruding portion having a planar surface portion at a distal end thereof.

22. The ink cartridge according to claim 21, wherein the protruding portion is conical in section.

23. The ink cartridge according to claim 22, wherein the opening portion includes a flared portion flaring outward moving along the flared portion in a direction of ink flow toward the ink supply port.

24. The ink cartridge according to claim 1, wherein the through-hole is formed at a center of the elastic member.

25. The ink cartridge according to claim 1, wherein the elastic member is shaped as a disc.26. A fluid flow controller for a recording head, comprising:

an elastic member having a first and a second surfaces and a sealing portion, and movable in response to a pressure differential between the first and second surfaces, the sealing portion having a through-hole;

a communicating portion facing the first surface of the elastic member and adapted to communicate with an ink tank storing ink therein;

an ink outflow port;

an opening portion of an ink flow path, which communicates with the ink outflow port, wherein the sealing portion of the elastic member is arranged for movement into contact with and separation from the opening portion; and

a space portion facing the second surface of the elastic member and communicating with the ink outflow port.

27. The fluid flow controller according to claim 26, wherein when the sealing portion of the elastic member separates from the opening portion, ink in the communicating portion flows via the opening portion into the ink outflow port and also via the through-hole into the ink outflow port.

28. The fluid flow controller according to claim 26, wherein the sealing portion of the elastic member is constructed as a protrusion protruded from the first surface.

29. The fluid flow controller according to claim 26, wherein the space portion communicates with the ink outflow port via an ink flow path different from the ink flow path having the opening portion.

30. The fluid flow controller according to claim 26, wherein the space portion communicates with the ink outflow port via the through-hole and the opening portion.

31. The fluid flow controller according to claim 26, wherein a partition wall is disposed at an upstream side of the elastic member to define a compartment between the elastic member and the partition wall, the partition wall having a protruding portion against which the sealing portion of the elastic member presses, and the opening portion of the ink flow path communicating with the ink outflow port is formed in the protruding portion.

32. The fluid flow controller according to claim 31, wherein a biasing member is disposed opposite to the protruding portion and urges the elastic member toward the protruding portion.

33. The fluid flow controller according to claim 31, wherein the elastic member is urged toward the protruding portion by elastic deformation of the elastic member.

34. The fluid flow controller according to claim 31, wherein the opening portion of the protruding portion is disposed to substantially face a center of the elastic member.

35. A method of regulating ink flow from an ink cartridge, having an ink supply port, to an ink jet head, comprising the steps of:

providing, as part of the ink cartridge, a valve chamber having a cover and a base, the base having both an inlet and an outlet, the valve chamber containing an elastic membrane having a through-hole, both the inlet and the outlet being disposed on a first side of the elastic membrane, and a space being defined between a second side of the elastic

membrane and the cover; and

pressing the elastic membrane toward the base with an applied force so that a contact portion of the elastic membrane seals the outlet and the through-hole from the inlet,

wherein, when a pressure in the space decreases beyond a given value, a resulting pressure differential across the elastic membrane causes the contact portion of the elastic membrane to move away from the outlet against the applied force, thereby communicating the outlet and the through-hole with the inlet.

36. A method according to claim 35, further comprising the step of causing the pressure in the space to be the same as a pressure in the ink supply port.

37. A method according to claim 36, wherein the step of causing is accomplished by providing a fluid path between the space and the ink supply port.

38. A method according to claim 36, further comprising the step of:

allowing ink to flow from the inlet via the outlet into the ink supply port and also via the through-hole and the space into the ink supply port until the pressure in the space increases to the given value.

39. The ink cartridge according to claim 1, wherein the communicating portion includes a compartment that faces the first surface of the elastic member, the compartment being arranged so that a pressure of ink stored in the ink storage chamber is applied to a substantially entire area of the first surface of the elastic member.

40. The fluid flow controller according to claim 26, wherein the communicating portion includes a compartment that faces the first surface of the elastic member, the compartment being arranged so that a pressure of ink stored in the ink tank is applied to a substantially entire area of the first surface of the elastic member.